

The Variable Media Approach

Contemporary art and artists are, increasingly, imagining new methods and mediums for creating and exhibiting artworks. It is an exciting and innovative time for art and art worlds, no longer is fine art strictly bound to a painting hung on the wall, nor a sculpture presented on a pedestal, fine art is now performed, installed, interactive, mobile, and mutable. Contemporary artists are taking objects from the mundane world and turning them into creative expressions that weave narratives, incite reactions, and encourage participation. Museums, curators, and collections management personnel are faced with a myriad of new challenges when attempting to preserve, store, and catalogue these innovative works of art; these challenges present exciting new opportunities for old methodologies and perspectives to be questioned, reinvented, and reformulated. The *Variable Media Approach* is one such paradigm that steps up to the challenge of addressing the myriad of questions presented by contemporary art for contemporary curators and collections care staff.

The following essay explores the Variable Media paradigm and looks, in depth, at three *Variable Media Approach* case studies to unpack this innovative, flexible, and living collections care methodology. To best approach this topic, I formulated a series of questions that this essay will address, including, what is the Variable Media paradigm, who are the key players, why was it created, why is it important, and how can it assist collections care personnel and curators as they manage contemporary art. The *Variable Media Approach* is comprised of the *Variable Media Network* and the *Variable Media Questionnaire*, these topics provided further entry points into unpacking the usefulness and complexity of the Variable Media rubric; furthermore, by deconstructing three case studies the *Variable Media Approach* can better be understood; the three case studies include Ken Jacobs' installation/performance, "Bitemporal Vision: The Sea," Felix Gonzalez-Torres' replenishable sculpture, "Untitled [Public Opinion]," and, Mark Napier's interactive website, "net.flag." These three case studies have been chosen because they illustrate the variable nature of contemporary art and represent a healthy distribution of styles and mediums.

The *Variable Media Approach* was developed to address the challenges presented to collections care personnel and museum curators by contemporary art and artists. It is a flexible

paradigm that embraces variability, change, and input as key factors in creating a rubric to help museums, and art institutions, formulate best practices to handle the increasing challenges of contemporary art. The *Variable Media Approach*, in many ways, is a healthy departure from traditional collections care practices that focus, predominantly, on preservation and storage as key components of best practice. Through the lens of the Variable Media paradigm contemporary art and artists are viewed as living beings, and, as such, do not, necessarily, fit the traditional practices of preservation and storage that have been heavily relied upon. The *Variable Media Approach* embraces the aspect that many contemporary artists are still alive, and, as such, are valuable resources when determining best practice for how to care for and preserve their respective artworks. The Museum Registration Methods defines the *Variable Media Approach* as, “a strategy that remains relevant for capturing essential and core concepts in...documentation of art. At the center of this approach is a way of identifying the essence of the conceptual base of the work” (p 81).

The *Variable Media Approach* is the resulting paradigm that was, initially, developed by the Solomon R. Guggenheim Museum, in New York City, as a response to the preservation problems collections care personnel were experiencing when cataloguing, exhibiting, and preserving the vast collection of the Film and Media Arts Program stored at the Guggenheim. The museum hosted a conference, *Preserving the Immaterial: Permanence through Change*, in New York, from March 30th-31st, of 2001, which resulted in a publication that defines, describes, and determines the Variable Media paradigm. The conference included not only a consortium of museum intellectuals and managers, but also a case study analysis that demonstrated how to utilize the *Variable Media Approach*. The *Variable Media Approach* is a publication, website, database, network, questionnaire, dialogue, fluid framework, and an open source tool (it remains open source, free, as long as it is not used for profit). Jean Gagnon, in the preface to the published text *The Variable Media Approach: Permanence Through Change*, explains, “the publication accompanied by a Web site and an online database, is integral to our goal of sharing information and directly involving the communities and institutions concerned with preservation” (Gagnon p. 5). The Variable Media paradigm is made up of many moving pieces that are influenced by many creative museum intellectuals; this speaks to the fluid and dynamic nature that makes the paradigm not only innovative, but also very useful. The many moving pieces include the published conference text *The Variable Media Approach: Permanence*

Through Change, the online resource *The Variable Media Network*, and the online *Variable Media Questionnaire*, these three open source resources have a base of museums and art institutions that create a foundational framework, but are available for everyone to access. John C. Hanhardt explains, “the Variable Media Network aims to establish a process and means to address artworks created across a variety of media and materials, to determine protocols and initiatives that will bring a flexible approach to the preservation of a range of creative practices. The variable media paradigm has been designed with extraordinary resourcefulness and intelligence by Jon Ippolito, Associate Curator of Media Arts” at the Guggenheim Museum (Hanhardt, 2003 p. 7).

The network of key players that contribute to the vibrancy and vivacity of the *Variable Media Approach* is vast; however, at its core the Variable Media paradigm was initiated by a handful of key players, namely, Jon Ippolito—Associate Curator of Media Arts at the Guggenheim, Carol Stringari—Variable Media Fellow and Senior Conservator of Contemporary Art, at the Guggenheim, and the Daniel Langlois Foundation for Art, Science, and Technology. The Daniel Langlois Foundation for Art, Science, and Technology is focused on preserving electronic and digital artworks: the *Variable Media Approach* was a paradigm proposed by Jon Ippolito, [he] “recognized the projects potential as a model for approaching the issue of preserving nontraditional media artworks,” and the Daniel Langlois Foundation funded the initial study (Gagnon, 2003 p. 5).

The *Variable Media Approach* is important because it allows a fluid and flexible framework to address the many necessary details present when preserving contemporary art. Bruce Sterling, science fiction author, was invited to be an introductory speaker at *The Variable Media Approach: Permanence Through Change* symposium hosted by the Guggenheim in 2001, in his words, the Variable Media paradigm is important because “curators, conservators, and archivists are much closer to the future than most of us mortals. That’s because they store, catalog, and preserve—they physically touch—the objects of the past and present that people in the future will see.” (Sterling, 2003 p. 11) He eloquently outlines the necessity for preservation techniques to keep pace with the changing nature of technology and art; furthermore he explains the problematic nature of relying on digitization as a solution for all preservation problems, “bits have no archival medium. We haven’t invented one yet. If you print something on acid free paper with stable ink, and you put it in a dry dark closet, you can read it in 200 years. We have

no way to archive bits that we know will be readable in even 50 years. Tape demagnetizes, CD's delaminate, Networks go down" (Sterling, 2003, p. 20) The Variable Media paradigm, particularly through the use of the *Variable Media Questionnaire*, presents a rubric to address the issue of obsolescence which he so concisely describes.

The *Variable Media Approach* is a tool for collections care staff and curators to assist them in addressing the needs of caring for contemporary art collections. As Richard Rinehart, of the Berkeley Art Museum/Pacific Film Archive states, "preservation is an interpretative act... recordings keep the radical performative intentionality intact for future exhibitions, and scores keep the patina of history and provenance intact for future research" (Rinehart, 2003, p. 25). He continues, "there is no longer one monolithic original artifact... Instead, we need a layered preservation strategy that admits fragments and traces, emulation software, re-creation, and reassemblage" to address issues of obsolescence (Rinehart, 2003, p. 25). Furthermore, one of the greatest obstacles facing museums, and art institutions generally is the question of where to source funding; implementing a new strategy for preservation and object care requires not only time, but also money. An aspect of the *Variable Media Approach* that lends itself well to helping collections staff reconcile the curation and preservation of variable media is that it is open-source, it is free to use as long it is not used for commercial gain; hence, implementing the strategies and methods of the *Variable Media Approach* necessitates time, thought, and care, but is not impeded by funding.

When confronting the myriad of challenges in documenting and preserving a performance art installation, collections care staff decide what methods they will employ (by what methods are available to them) to document the performance, Mulready explains, "both photo and video documentation of performance, if well produced, look like other professional art photographs or video: the conventions of these mediums are imposed onto the original performance" (Mulready, 2003, p. 35). The original performance will, essentially, never happen again, it exists for a moment in time both singular and unique: that is the beauty of the temporality of experiencing performance art. By photographing and videotaping the performance, which are common practices, in an attempt to capture and preserve the original performance, the lens of the camera edits, and will never be able to fully capture the audience experience of watching a performance in person. The *Variable Media Approach* addresses this issue, and offers suggestions on ways collection care staff and curators can overcome this

obstacle, notably in suggesting the value of generating a dialogue with the artist to address issues of reproducibility, whether that is subsequent performances in different locations, or by different performers. Carol Stingari explains, “conservators responsible for the preservation of contemporary art collections are at times confronted with complex problems that require flexibility and resourcefulness, [the issues] sometimes defy the traditional conservation impulse to be conservative,” the Variable Media paradigm provides collections care personnel with a rubric to guide this impulse.

The *Variable Media Approach* and *Network* embraces the concept that new media art works cannot easily be differentiated into “mutually exclusive mediums” that most works are hybridizes (Ippolito, 2003, p. 48). The variable media paradigm insists that parting from the compartmentalized notion of mediums is essential when engaging in the foundational dialogue underlying the approach; Jon Ippolito coined the term “*behavior*” to replace the traditional concept of medium (Ippolito, 2003, p. 48). The Variable Media paradigm taps into the *Variable Media Network*, and considers artworks not solely on the premise of medium, but describes work based on a series of behaviors. A variable media behavior is defined as “one of several medium-independent traits an artwork can possess” (Schaefer, 2003, p.123). The following are *behaviors* utilized by the variable media paradigm:

Contained: when an artwork requires some aspect of construction as intervention: i.e. protective coating.

Duplicated: a copy that cannot be distinguished from the original by an independent observer.

Encoded: part or all of a work is written in computer code or some other language that requires interpretation.

Installed: an artworks physical installation is more complex than simply hanging it on a nail, considerations include the scale required to fill a given space or to make use of unusual placement, such as the exterior of a building or a public plaza.

Interactive: describes installations that allows visitors to manipulate or take home components of a physical artwork, the variable media questionnaire tracks such considerations as the type of interface; the method by which visitors modify the work; and the form in which traces of such input are recorded.

Networked: artwork designed to be viewed on an electronic communication system, whether a Local Area Network or the Internet, including web sites, emails, and streaming audio and video.

Performed: including not only dance, music, theater, and performance art, but also works for which the process is as important as the product.

Reproduced: a recorded medium is “reproduced” if any copy of the original master of the artwork results in a loss of quality. (Schaefer, 2003, pg. 123 – 129)

Behaviors are not isolated, many works are installed, performed, and interactive, or any combination of applicable behaviors. After identifying appropriate behaviors to describe the artwork, the variable media paradigm offers strategies to solve particular preservation issues. The Variable Media paradigm looks at preservation as a set of *strategies* to best address the overlapping and intertwining behaviors present in the artwork. The following are the variable media strategies as presented by *The Variable Media Approach: Permanence through Change*.

Emulation: to emulate a work is to devise a way of imitating the original look of the piece by completely different means; a refabrication of the original artwork.

Migration: to migrate an artwork involves upgrading equipment and source material.

Reinterpretation: The most radical preservation strategy is to reinterpret the work each time it is re-created. Reinterpretation is a dangerous technique when not warranted by the artist, but it may be the only way to re-create performed, installed, or networked art designed to vary with context.

Storage: The most conservative collecting strategy—the default strategy for most museums—is to store work physically. (Schaefer, 2003, pg. 123 – 129)

The importance of re-conceptualizing artworks through an understanding of artwork behavior and preservation strategies encapsulates the dialogue needed to implement the Variable Media rubric. At the heart of this preservation process is the ongoing dialogue with contemporary artists, Hanhardt states, “it is essential that late 20th-century art as well as new art practices be understood and contextualized through a conversation with artists, giving rise to critical histories that inform and deepen our understanding of our visual culture” (Hanhardt, 2003, p. 8). He continues, “the Variable Media Network relies on the sharing of stories and individual experiences told by artist and related participants in the creation, exhibition, and collection of art” (Hanhardt, 2003, p. 8). A direct dialogue with contemporary artists allows

curators, particularly, the opportunity to create exhibitions that encourage multiple entry points for the audience, which provides a deeper understanding of the intention of the artist. The narrative behind the creation of contemporary artworks helps create a more diverse and deeper experience for the audience, which can create an opportunity for the audience to have a more personal understanding of the work. Hanhardt explains, “creative insights of the artist help us [collections care managers] see this complex history of film and the media arts as tied to the larger visual culture, as well as to the diverse practices and histories of art, as artist fashion intertextual discourses out of a variety of media and materials, challenging the traditional language and conventions of art making” (Hanhardt, 2003, p 9).

Rhizome.org is a key player in the *Variable Media Network* due to their focus on “artistic intention [being] at the heart of new media preservation debates.” Alena Williams of Rhizome.org explains, “the Rhizome ArtBase is an artist driven, Web-based archive of new media art assembled and maintained by Rhizome.org, a not-for-profit organization based in NYC” (Williams, 2003, p. 39). They work with net art and introduce variables on the protocols offered by the *Variable Media Network* in dealing with specific issues such as emulation of hardware, migration of code to new formats, and reinterpretation of new media art over a large spectrum of platforms. Rhizome.org represents just one of the many key players that participate in keeping the *Variable Media Network* a living database, other organizations, such as the Guggenheim, Berkeley Art Museum/Pacific Film Archives of Berkeley, CA, Franklin Furnace Archive, INC. of New York City, NY, Performance Art Festival + Archives of Cleveland, OH, the Walker Art Center of Minneapolis, MN, and The Daniel Langlois Foundation for Art, Science, and Technology of Montreal, Canada, participate as well.

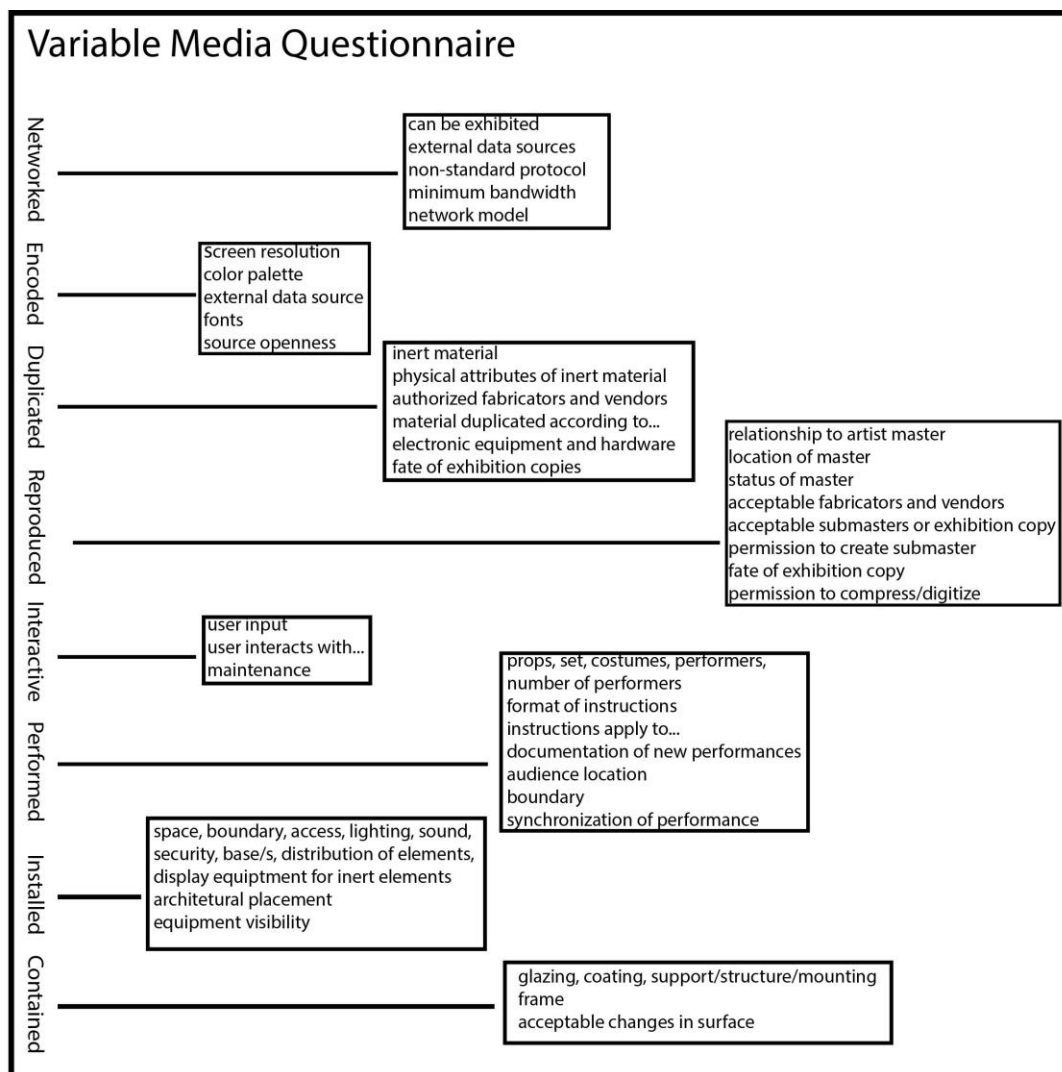
The *Variable Media Network* can aid collections care staff and curators in a variety of modalities, “it offers a way to explore, expand, and potentially codify—in a flexible format—the inclusion of artist intent in issues of preservation, interpretation, and presentation that are a condition of much contemporary art and are independent of materials or medium” (Dietz, 2003, p. 43). The *Variable Media Network* can greatly aid collections care staff and curators by offering “new perspectives... which elucidates the ephemeral/transitory nature of some material while striving to preserve the experience, we can work collaboratively to develop our knowledge about where to best apply financial resources for preservation.” (Stringari, 2003, p. 56). Furthermore, Stringari explains, by emphasizing the need for an “open dialogue across many

disciplines with the artist as a primary source whenever possible, we can influence the future of preservation in a positive way... this interaction will help define acceptable degrees of change in an effort to preserve essential components that must remain fixed for a work to retain its integrity” (Stringari, 2003, p.56). The Variable Media paradigm embrace fluidity and plasticity, which is one of its many strengths; furthermore, within this context of dialogue and flexibility, there exists a close examination of details pertaining not only to preservation practices and artist statements and perspectives, but also to detailed documentation and records, which creates a body of information that is easily accessible to collections care and curatorial personnel.

The *Variable Media Network* is a fantastic resource for museums and other art institutions because it is online, living, fluid, and open source. Preserving the mission of the institution is of utmost importance for collections management and curatorial staff to consider when acquiring and accessing new works of art, and, in turn, caring for these works for future generations. Ippolito explains that the importance of the network is rooted in “a multi-institutional database that enables collecting institutions to share and compare data across artworks and genres” (Ippolito, 2033, p. 47). This “multi-institutional database” links museums and makes available recommendations, case studies, successes, failures, and experiments. The *Variable Media Approach* and *Network* are, inherently, flexible paradigms that become more successful when a greater number of individuals join the dialogue. Steve Dietz addressed how the *Variable Media Network* can assist museums fulfill their mission, “in case of equipment obsolescence, the Walker [museum] may find it necessary to replace vintage equipment with newer components. If this can be done in a discreet manner (i.e. bypassing original equipment), is this acceptable to the artist? And, does the artist wish to be consulted, should such a case arise?” (Dietz, 2003, p. 43). By linking documents, data, and institutions together through an online platform that is searchable and modifiable, The *Variable Media Network* embraces the core concept of dialogue: not only are preservationists discussing issues with artists, but also are preservationists discussing issues across institutions. All of these well documented dialogues can only assist current and future collections care staff in caring for and preserving artwork.

The *Variable Media Questionnaire* is the rubric offered by the *Variable Media Approach* as a tool for collections care staff and curators to use to preserve and document contemporary art: it asks a series of questions that create the essential documentation needed to implement the

Variable Media paradigm. The *Variable Media Questionnaire* helps to “cease...the conservator’s job of (solely) *preservation* as independent from the curators job of *presentation*,” to encourage artwork to become “linked [to a succession of] events that, like a stream of water, endures by remaining variable” (Ippolito, 2003, p. 53). The *Variable Media Questionnaire* “allows users to compare multiple viewpoints on the same art work: the artist’s assistant will have a different perspective than the artist, as will curators or conservators with intimate knowledge of the artists life and work,” hence, the *Variable Media Questionnaire* is “less a set of commandments carved in stone than a matrix of preferences rendered in a fluid digital form” (Ippolito, 2003, p. 52). The *Variable Media Questionnaire* looks like this:



Online, the *Variable Media Questionnaire* can be accessed through the *Variable Media Network*. It displays icons that work as a file sharing platform for documenting works of art that

can be accessed by whomever interacts with the website; prompts include “add a new stakeholder” (key player), “add a new work of art,” “add a new part,” “add a new question for the questionnaire,” and “add a new package for the questionnaire” (Variable Media Questionnaire.net, Retrieved December 5th, 2013). The *Variable Media Questionnaire* “captures information for artworks that are reproduced, duplicated, interactive, encoded, networked,” contained, installed, performed, and reproduced, these terms describe the artworks behavior and are not mutually exclusive: pieces can be simultaneously networked, installed, and interactive (Ippolito, 2003, p. 49). The flexibility and plasticity of the questionnaire is one of its greatest strengths; furthermore, the questionnaire is a living document, and professionals and intellects in the field can suggest changes and additions.

The Variable Media paradigm is of great use to collections management personnel and curators, not only is there a vast resource of other documented work which can be referenced when a particularly challenging artwork is being considered, but also the artist interviews are an intrinsic part of the *Variable Media Questionnaire* with can address issue like obsolescence of hard/software and slippage. The *Variable Media Questionnaire* assists collections care staff with addressing the problematic issue of slippage: by inviting the artist into the conservation, procedures can be developed that best care for the work. Ippolito explains, “to emulate an artwork... is not to store digital files on a disk or physical artifacts in a warehouse, but to create a facsimile of them in a totally different medium” (Ippolito, 2003, p. 51). While emulation is a remarkably radical concept in relation to traditional preservation methods, when considering the visual arts, it is commonly used in archeological and anthropological collections care, or when creating pieces utilized in educational museum programming.

The *Variable Media Questionnaire* holds a space for living artists and collections care staff and curators to collaboratively consider the future of an artwork and the benefits and deficits of emulation. Another departure from traditional storage and preservation techniques is to consider the value of migrating an artwork, “to migrate an artwork is not to imitate its appearance with a different medium, but to upgrade its medium to a contemporary standard, accepting any resulting changes in the look and feel of the work” (Ippolito, 2003, p. 51). Migration may appear, at first, less radical than emulation; however, aesthetically it can create a larger schism between the “look and feel” of the original to the upgraded version. For example, in Ken Jacob’s *Bitemporal Vision: The Sea* (1994) he performs alongside his installation, which

is comprised of two film projectors, a migration to a contemporary standard may utilize a digital projector in place of the film projectors, aesthetically, aurally, and, even, olfactorily, a digital projector and a film projector are worlds apart. Ippolito explains, “we need artists—their information, their support, and above all their creativity—to outwit oblivion and obsolescence. That is why the variable media approach asks creators to play the central role in deciding how their work should evolve over time, with archivists and technicians offering choices rather than prescribing them” (Ippolito, 2003, p. 47).

The *Variable Media Questionnaire* can assist collections care staff and curators because it offers a rubric for ascertaining the needs of exhibitions and installations, the *Variable Media Questionnaire* provides “prompts for such preferences such as the ideal installation space (‘fine art or museum gallery’), lighting requirements (‘as dark as code allows’), and distribution of elements” (Ippolito, 2003, p. 48). Unpacking artwork with regards to a cross section of behaviors and appropriate preservation strategies allows collections management personnel to address known issues of obsolescence and slippage, and to accept that future collections management staff will, inevitably, face these issues as well. Ippolito posits, “whether digital or analog, duplicable works beg the question of which forms of distribution are acceptable,” the *Variable Media Questionnaire* creates a documented reference to understand and implement the best practice for each artwork, with the understanding that the “acceptable” methods of distribution may change over time as technology, software, and resources manifest.

For interactive artwork, one question that collections care staff and curators must consider is “whether traces of previous visitors should be erased or retained in future exhibitions of the work” the *Variable Media Questionnaire* addresses these considerations and documents best practice (Ippolito, 2003, p. 50). Similarly, certain pieces require repair and adjustments be made to them, to ascertain the best practice that most closely aligns with the artist intention, the “contained” behavior was included in the *Variable Media Questionnaire* “which asks questions such as whether an oxidized surface should be cleaned or a damaged frame replaced” (Ippolito, 2003, p. 50). A great boon to collections care staff and curators is engaging in dialogue with, and concretely documenting, the artists intention so that future exhibitors can reference the recorded data; the *Variable Media Questionnaire* creates a referential document that aids not only current collections care staff and curators, but also future exhibitors of the work.

To gain a deeper understanding of the *Variable Media Approach* the following three case studies will be unpacked and analyzed. I will look at how the *Variable Media Approach* was utilized to document and preserve these contemporary works of art, where the *Variable Media Approach* succeeded, and where the *Variable Media Approach* failed. The three artworks include: Felix Gonzalez-Torres' replenishable sculpture, "Untitled [Public Opinion], Ken Jacobs' installation/performance, "Bitemporal Vision: The Sea", and, Mark Napier's interactive website, "net.flag."

Felix Gonzalez-Torres, (November 26th 1957 – January 9th, 1996), was an American, Cuban-born, gay, contemporary artist known for replenishable installation works who was considered to be a process artist. Gonzalez-Torres was active in New York City in the 1980's with the art institution *Group Material*, and, later, was involved with the *Berkeley Art Museum and Pacific Film Archive*, and created works considered to be both political and personal. Many of his works are thought to be discussions about Gonzalez-Torres's experiences of HIV, AIDS, and the death process, while other works act as commentaries on war, familial strife, and disease. His work *Untitled [Public Opinion]* was installed in the Guggenheim Museum in New York in 1991 and is composed of, ideally, 700lbs of black rod licorice candy individually wrapped in cellophane, audience members were encouraged to take a piece of candy, and the exhibiting institution would replenish the sculpture as the candies diminished.



"Untitled (Public Opinion)," Felix Gonzales-Torres, 1991, Installation view at the Solomon R. Guggenheim Museum, New York. Photo by David Heald.

The Gonzales-Torres piece is at once easily preserved, but also, by its very nature, highly problematic: in terms of basic museum logistics, having a 700lb pile of candy in the corner of a gallery is an Integrated Pest Management nightmare. This aspect of preserving the art is not

directly addressed by the *Variable Media Approach/Network/Questionnaire*, there is an, almost, blatant disregard for the procedural aspect inherent in museum collections management policies. It appears that the *Variable Media Approach* values the aesthetic and ethical value of the piece as art, over the collections management perspective as art as object. Untitled (Public Opinion), appears to be one of the most easily conserved works of art under examination, because the title—the ownership--of the piece is not the physical candy itself, but the intellectual property that describes and instructs the installation of the candy spill. Nancy Spector, Contemporary Art Curator at the Guggenheim explains, “we didn’t buy the candy, only the right of ownership” (Spector, 2003, p. 94). Spector goes on to speak to Gonzalez-Torres’ conceptual background with regard to creating diminishing artworks, that poetically emulates the ideology of the *Variable Media Approach* concept of *Permanence Through Change*, “one...important conceptual...issue within Felix’s work is our obsession with permanency, our obsession for concretizing work. This is what is so interesting about the variable media initiative...is it possible for us to move away from the obsession of storing and preserving?...” (Spector, 2003, p. 95).

Arguably, if the instructions are followed to the letter each time the piece is installed—emulated--it would be nearly impossible for the audience to determine if it was the first or fiftieth installation of the candy spill, as long as the raw materials are still readily available on the market; the main obstacle in reinstalling and recreating this piece is if the candy is no longer produced. Utilizing the verbiage of the *Variable Media Approach* “Untitled (Public Opinion)” includes the following behaviors: duplicated, installed, and interactive; and a recommended strategy for preservation: emulation; however, as Spector considers, “Felix’s work doesn’t favor one strategy over another but instead forces museums into an awkward position of having to determine what the meaning is in a way that hanging a painting on a white wall doesn’t” (Spector, 2003, p. 97). When considering the behaviors and strategies recommended in preserving this installation the *Variable Media Questionnaire* documents the following considerations:

Candy

Storage: Should candies be stored before going out of production? If so, should visitors be prevented from taking candy once the remaining candies have reached a minimum amount?

Emulation: Once candies are discontinued, should a substitute candy—most closely resembling the original—be found? If so, which aspect is the most important to imitate: the wrapper, the appearance of the confection, or the flavor?

Migration: When candies become obsolete, should re-creators of the work substitute the up-to-date version of the same candy type from the same or comparable manufacturer, even if it may look and taste different from the original?

Reinterpretation: When candies become obsolete, should re-creators of the work substitute a metaphoric or functional equivalent of the original candies (e.g., inhalers for cough drops)?

Amount

Storage: Should museum staff never replenish the candy supply for a given exhibition, but allow the work to disappear with time?

Emulation: Should the initial shape, dimensions, and weight of the original candy spill be re-created every time it is installed? Should museum staff replenish the candy supply for a given exhibition to bring the work back to its original dimensions? How often should they do this?

Migration: Should re-creators of the work scale the dimensions and weight of the candy spill to suit the size and expected attendance of each exhibition space? Should museum staff vary how frequently they replenish the candy supply according to demand?

Reinterpretation: Should re-creators of the work scale the shape, dimensions, or weight of the candy spill based on detailed instructions on site-specificity? Should museum staff vary how frequently they replenish the candy supply based on the artist's instructions?

Simultaneous Exhibitions

Storage: Should simultaneous exhibitions be forbidden?

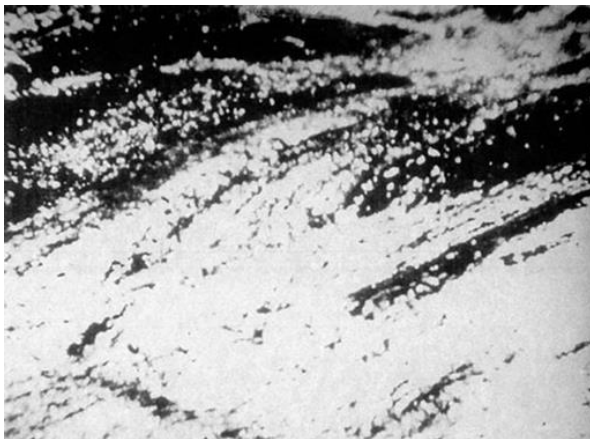
Emulation: In the case of simultaneous exhibitions, should the traces of previous visitors (e.g., a reduction in the amount of candy) be disregarded for each new venue?

Migration: In the case of simultaneous exhibitions, should the traces of previous visitors (e.g., a reduction in the amount of candy) be inherited from previous venues but diverge for future venues?

Reinterpretation: In the case of simultaneous exhibitions, should the traces of previous and current visitors (e.g., reduction in the amount of candy in two different installations) be periodically enforced for all clones by manually removing candy?

Ken Jacobs (b. May 25th, 1933) is an American experimental filmmaker who created, installed, and performed the work “Bitemporal Vision: The Sea.” Considered to be one of Jacobs’ more radical works in his “Nervous System” series, the artists trains two film projectors running nearly identical film reels onto the same screen. In front of the two projectors sits a

propeller that rotates to cover and reveal the two projections alternating between the images. Jacobs then manually advances or reverses each film reel while manipulating the fan to superimpose the two beams: the result is a subtle fade from one image to another. The *Variable Media Approach* case study shows how “these manipulations transform the hitherto recognizable image of the sea into an unpredictable variety of suggestive forms. In certain performances, the artist has distributed a neutral-density (Pulfrich) filter to his audience, with instructions to hold it in front of one eye to enhance the three-dimensional illusion created by the dual projection” (Ken Jacobs, *Bitemporal Vision: The Sea*, Retrieved November 22nd, 2013). “Bitemporal Vision: The Sea” includes the following behaviors and recommended preservation strategies: this work is performed, installed, interactive, and duplicable; with regards to preservation strategies, this work can be emulated, stored, and, possibly, migrated.



“Bitemporal Vision: The Sea,” Ken Jacobs, 1994.

Preservation strategies to explore include:

Film Source

Storage: The performances to date have employed 16 mm prints of Solomon's original footage, as well as a 35 mm enlargement created from an inter-negative. What is the best way to conserve this source material?

Emulation: If the source is ported to a different format (e.g., DVD), should the sound of the film projector be recorded onto that format?

Migration: Should the existing film be reprinted on sturdier stock to create exhibition/performance copies? Which negative, print, or inter-negative should be treated as the master? Can documentation of performances be distributed in low-resolution (e.g., VHS) formats for educational purposes? What should be the fate of any such exhibition/research copies over time? If the source is ported to a different format (e.g., DVD), should compromises in the

viewer's original experience (e.g., the loss of the sound of the film projector) be accepted as simple consequences of bringing the work's medium up-to-date?

Reinterpretation: Should the original performance be reinterpreted in a digital format that permits a randomly selected combination of previous performances, so that no two viewings are the same?

Playback Equipment

Storage: Should dedicated analytical projectors, used to pulse the film and hold a single frame in gate, be stored along with the film?

Emulation: Is it possible to build a robotic "player piano" that manipulates the projectors in real time to match the original performance?

Migration: Can the performance be re-created using video projectors?

Reinterpretation: Should the artist create a script, cue sheets, and other guidelines to encourage future performances of the work by other performers?

Ken Jacobs "Bitemporal Vision: The Sea" could be emulated, even if the artist is not present to manipulate the projectors and propeller, as long as detailed instructions are provided for said manipulations. The *Variable Media Approach* allows this work to be installed and experienced by audiences because it thoroughly documents the intention Jacobs had when creating the original work. This is, ultimately, the strength of the *Variable Media Approach* for it allows an acceptable amount of change to occur when exhibiting the work for future audiences.

Mark Napier (b. 1961) is an American artist known as an early pioneer of interactive web-based art: net art. Napier's artwork "Net.Flag" is an interactive networked encoded Java applet computer program that invites audiences to reconfigure an online flag comprised of pieces of national flags from around the globe. His piece is described as a mutable flag that invites "visitors to the Web site [to] combine the geometric elements of a wide assortment of international flags to create a unique, hybrid flag to serve as an emblem for the Internet's dissolution of national boundaries. The actions of each visitor are stored on the Web server, so that subsequent visitors can view the modifications made by previous visitors and thus ascertain how the flag has evolved during the course of the project" (Retrieved from http://www.variablemedia.net/e/case_napie_netfl.html).



The “Net.Flag” edited by Bea Ogden on December 6th, 2013. Mark Napier. Commission of the Solomon R. Guggenheim Museum, New York.

“Net.Flag” is interactive, duplicated, encoded, and networked, and if Napier agrees, can be exhibited in a museum, in which case it is also installed. The *Variable Media Network* states “all of these behaviors are vulnerable to technological obsolescence or cultural amnesia: interactions via keyboard and mouse may be superseded by another interface; the Java programming language may be unreadable by future browsers; Web projects written for the current version of HTML may not be accessible over future versions of the Internet; and future display technologies (such as smart walls) may not offer the look and feel of an original installation context (such as a monitor on a pedestal)” (Retrieved December 6th, 2013, http://variablemedia.net/e/case_napie_netfl.html). In his discussion of the preservation techniques used to care for this work, Ippolito states, “in the language of the variable media questionnaire Net.Flag is interactive, duplicated, encoded, and networked, ... thus, offers a handy demonstration of this innovative conservation tool” (Ippolito, 2003, p. 109). The challenges facing collections care staff fall mainly in the realm of software obsolescence, but since Napier has provided feedback regarding such issues, migrating techniques to combat obsolescence have been documented. “Net.Flag” is still alive and working online, it can be manipulated and interacted with; hence, utilizing the *Variable Media Approach* as a conservation tool has been successful.

The *Variable Media Approach* is a dynamic framework to help collections care and curatorial personnel address the myriad of concerns when preserving and storing contemporary

works of art that exhibit variable behaviors and utilize a spectrum of mediums. The components of the *Variable Media Approach*—the *Variable Media Network* and the *Variable Media Questionnaire*—are mutable components that encourage and necessitate dialogue between both museums and artists, and between institutions. The strengths of the *Variable Media Approach* include its dynamic nature, its plethora of inputs, and its encouragement of dialogue; this combination makes it a useful tool for collections care and curatorial staff when working to preserve artworks and uphold institutional missions. Though the *Variable Media Approach* was formulated with contemporary art in mind, it is applicable to anthropological collections, particularly, as with the Museum of Natural and Cultural History, when contemporary craft makers contribute objects to the museums' collection. The Variable Media paradigm is still in use today and is open to contributions and alterations by individuals working in collections care. The three case studies examined in this essay demonstrate how the *Variable Media Approach* can be applied to artworks that employ different modalities. It is a valuable exercise for current preservationists to examine the departures from traditional methodologies of storage, and to consider artworks as not simply impeded by the passage of time and the development of new technologies, but to embrace the changes that can sustain the essence of permanence.

Works Cited

- Buck, R., & Gilmore, J. (2010). *Museum Registration Methods 5th Edition*. Washington, DC: The American Association of Museums Press.
- Dietz, S. (2003). Walker Art Center. Proceedings from *Permanence through Change: The Variable Media Approach* (pp. 43-45)
New York, NY: Guggenheim Museum Publications
- Félix González-Torres, Retrieved December 7th, 2013
From http://en.wikipedia.org/wiki/F%C3%A9lix_Gonz%C3%A1lez-Torres
- Gagnon, J. (2003). Preface. *Proceedings from Permanence through Change: The Variable Media Approach*. (p. 5) New York, NY: Guggenheim Museum Publications
- Gartenberg, J. (2003). Ken Jacobs, Bitemporal Vision: The Sea, “Preserving the Immaterial” Excerpts. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 87-91). New York, NY: Guggenheim Museum Publications
- Hanhardt, J (2003). The Challenges of Variable Media. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 7-9) New York, NY: Guggenheim Museum Publications
- Ippolito, J. (2003). Accommodating the Unpredictable: The Variable Media Questionnaire. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 47-53). New York, NY: Guggenheim Museum Publications
- Ippolito, J. (2003). Mark Napier, net.flag, “Preserving the Immaterial” excerpts. *Proceedings From Permanence through Change: The Variable Media Approach* (pp. 109-114). New York, NY: Guggenheim Museum Publications
- Jones, C. (2003). Reality Check: A Year with Variable Media. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 61-64). New York, NY: Guggenheim Museum Publications
- Ken Jacobs, The Artist. Retried November 30th, 2013,
From <http://the-artists.org/artist/Ken-Jacobs>
- Ludwig, T. (2003) Franklin Furnace Archive, Inc. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 29-32)
New York, NY: Guggenheim Museum Publications
- Mark Napier (artist), Retrieved December 7th, 2013
From [http://en.wikipedia.org/wiki/Mark_Napier_\(artist\)](http://en.wikipedia.org/wiki/Mark_Napier_(artist))

Mulready, T (2003). Performance Art Festival + Archive. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 35-37)
New York, NY: Guggenheim Museum Publications

Net.flag, A Flag for the Internet, Retrieved December 7th, 2013
From <http://webart.guggenheim.org/netflag/>

Net.Flag Editor, Retrieved December 8th, 2013
From <http://webart.guggenheim.org/netflag/netflageditor.html>

Rinehart, R. (2003). Berkeley Art Museum/Pacific Film Archive, *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 25-27)
New York, NY: Guggenheim Museum Publications

Schaefer, C. & Weisberger, E. (2003). *Permanence through Change: The Variable Media Approach*. New York, NY: Guggenheim Museum Publications

Seeing Double, Emulation in Theory and Practice, Retrieved December 7th, 2013
From http://www.variablemedia.net/e/case_jacob_bitem.html

Spector, N. (2003). Felix Gonzalez-Torres, Public Opinion, "Preserving the Immaterial"
Excerpts. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 93-99). New York, NY: Guggenheim Museum Publications

Sterling, B. (2003). Digital Decay. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 11-22)
New York, NY: Guggenheim Museum Publications

Stringari, C. (2003). Beyond "Conservative:." The Conservator's Role in Variable Media Preservation. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 55-59). New York, NY: Guggenheim Museum Publications

Solomon R. Guggenheim Museum, Retrieved December 2nd, 2013,
From <http://www.guggenheim.org/>

Variable Media Network, Retrieved October 20th, 2013,
From <http://www.variablemedia.net/e/>

Variable Media Questionnaire, Retrieved October 20th, 2013,
From <http://variablemediaquestionnaire.net/>

Williams, A. (2003). Rhizome.org. *Proceedings from Permanence through Change: The Variable Media Approach* (pp. 39-41)
New York, NY: Guggenheim Museum Publications